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10/617,100	07/10/2003	Yutaka Banba	35848	1988

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EXAMINER	
RIZK, SAMIR WADIE	
ART UNIT	**PAPER NUMBER**
2133	

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/617,100	BANBA, YUTAKA	
	Examiner	Art Unit	
	Sam Rizk	2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *7/10/2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/10/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTIONS

- Claims 1-13 have been submitted for examination
- Claims 1-13 have been rejected

Claim Objections

1. Claim 1 is objected to because of the following informalities:
   - Claim 1 should recite: ".....performing different transmission line coding for each classes".

   Appropriate correction is required.

2. Claims 8-13 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3 and 5-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Kawahara et al. US patent no. 6434718 (Hereinafter Kawahara).

2. In regard to claim 1, Kawahara teaches;

- A transmission line coding method of performing transmission line coding per transmission frame having plurality compressed frame data, comprising the steps of
- grouping bits of said compressed frame data into plural classes according degree degradation of decoding quality in the presence of a transmission error; and
- performing different transmission line coding for each classes. (Note: Figure(s) 2A, 2B and 2C and Col. 3, line 28 and Col. 4 Lines (65-67) and Col. 5, lines (1-5) in Kawahara)

3. In regard to claim 2, Kawahara teaches;

- A transmission line coding method according claim 1;
- wherein the bits of said compressed frame data are grouped into at least three classes involving first class, second class of which the degree degradation of the decoding quality smaller than that of the first class and third class of which the degree degradation of the decoding quality is smaller than that of the second class, and
- wherein first process "convolution coding and addition of CRC check codes" performed for bits classified as the first class (**Note: Col. 4, lines (35-39) in Kawahara**) , second process "convolution coding only" is performed for bits classified as the second class (**Note: Col. 4, lines (30-34) in Kawahara**), and third process "no coding" **(Note: Col.**

4, lines (42-46) in Kawahara) classified as the third class is performed for bits.

4. Claim 3 is rejected for the same reasons as claim 2.

5. In regard to claim 5, Kawahara teaches;

- A transmission line decoding method, comprising the steps of:
- decoding for transmission frames, which are encoded by way the transmission line coding method according to claim 1 in each plural classes grouped in descending order of the degree of degradation of decoding quality the presence of a transmission error; and subsequently canceling the grouping to restore performing different transmission line original information.

(Note: Fig. 3 and Col. 2, lines (52-65) in Kawahara).

6. In regard to claim 6. Kawahara teaches;

- A transmission line decoding method, comprising the steps of;
- decoding and CRC check process" for bits classified as first class, performing fifth process "Viterbi decoding and CRC check process" for bits classified as first class, performing fifth process "Viterbi decoding only" for bits classified as second class of which a degree of degradation of decoding quality is smaller that that of the first class, and performing sixth process "no decoding" for bits classified as third class degradation of which the degree of degradation of the decoding quality is smaller than that of the second class, wherein each bits are

encoded by way of the transmission line coding method and according to claim 2; and

- subsequently canceling the grouping to restore original information.

(Note: Col 5, section (2) in its entirety in Kawahara)

7. Claim 7 is rejected for the same reasons as claim 6.

8. Claims 8,10 and 12 are rejected for the same reasons as claim 1.

9. Claims 9, 11, and 13 are rejected for the same reasons as claim 5.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawahara as applied to claim 4 above, and further in view of Vargo et al. US patent no. 6356545 (Hereinafter Vargo).

10. In regard to claim 4, Kawahara teaches substantially all the limitations in claim 1. However, Kawahara does not disclose the details of;

- A transmission line coding method according claim 1
- wherein said plurality compressed frame data audio compressed frame data, which split into two to six sub-bands, compressed by way of a **sub-band ADPCM mode**.

Vargo, in an analogous art, of an architecture permits dynamic packet-to-packet change in codec teaches Sub-band ADPCM speech coding (Note: Col. 8, lines (21-44) in Vargo).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kawahara with the teaching of Vargo to include details of the ADPCM Sub-band speech coding

This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized the need to use the industry standard speech compression protocols.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Sinha et al. US patent no. 6223324 teaches multiple program unequal error protection for digital audio broadcasting and other applications.
- Sinha et al. US patent no. 6931372 teaches joint multiple program coding for digital audio broadcasting and other applications
- Choi et al. US patent no. 6757860 teaches channel error protection implementable across network layers in a communication system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Rizk whose telephone number is (571) 272-8191. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronics Business Center (EBC) at 866-217-9197 (toll-free)

Sam Rizk, MSEE, ABD

Examiner

ART UNIT 2133

12/14/05

JOSEPH TORRES
PRIMARY EXAMINER